## ABSTRACT OF THE DISCLOSURE

A nucleic acid molecule can be annealed to an appropriate immobilized primer. The primer can then be extended and the molecule and the primer can be separated from one another. The extended primer can then be annealed to another immobilized primer and the other primer can be extended. Both extended primers can then be separated from one another and can be used to provided further extended primers. The process can be repeated to provide amplified, immobilized nucleic acid molecules. These can be used for many different purposes, including sequencing, screening, diagnosis, *in situ* nucleic acid synthesis, monitoring gene expression, nucleic acid fingerprinting, etc.